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Attn:
8/20/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:) Attorney
Jerrold L. King and) Docket Number: MICR135.02
Jerry M. Brooks)
Serial No: 09/834,696) Group Art Unit: 2822
Filed: April 12, 2001) Examiner: J. Mitchell
For: SEMICONDUCTOR CHIP)
PACKAGE)

)

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August 22, 2002

AUG 22 2002
TECHNOLOGY CENTER 2800

Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

RESPONSE TO THE OFFICE ACTION MAILED MAY 23, 2002

Please amend the Application as follows.

In The Specification

Page 1, line 1, substitute the following section (the original
Cross Reference to Related Applications section was added in the preliminary
amendment).

Cross Reference to Related Applications

21
This is a continuation of Application Serial No. 08/910,500 filed August 4, 1997,
now U.S. Patent No. 6,232,213, which is a continuation of Application Serial No.
08/436,522 filed May 8, 1995, now U.S. Patent No. 5,677,586.

In The Claims

Substitute the following amended claims for the original claims having the same number.

19.(amended twice) A semiconductor chip package, comprising:
a semiconductor chip;
conductive leads electrically connected to and extending over a surface of the
chip;
a continuous body of encapsulating material covering at least a portion of the
chip and fully encapsulating the conductive leads; and
electrodes each having a first portion disposed in the encapsulating material and
contacting a conductive lead and a second portion protruding from the encapsulating
material.

23.(amended once) A semiconductor chip package, comprising:
a semiconductor chip;
conductive leads electrically connected to and extending over a surface of the
chip;
a continuous body of encapsulating material covering at least a portion of the
chip and at least a portion of the conductive leads; and
solder balls each having a first portion disposed in the encapsulating material
and contacting a conductive lead and a second portion protruding from the
encapsulating material.

24.(amended once) A semiconductor chip package, comprising:
a semiconductor chip having bond pads aligned along a surface of the chip;
insulating material on the surface of the chip, the insulating material having holes
therein to enable electrical connection to the bond pads;
conductive leads attached to the insulating material, each lead electrically
connected to and extending over the bond pads;

(13)

Claim 1

a continuous body of encapsulating material covering at least a portion of the chip and at least a portion of the conductive leads; and
solder balls each having a first portion disposed in the encapsulating material and contacting a conductive lead and a second portion protruding from the encapsulating material.

REMARKS

Claims 19 and 23-24 are pending.

Rejection Under 35 U.S.C. § 112 and Assertion of New Matter

The Examiner incorrectly asserts that the amendment to Claim 19 reciting encapsulating material fully encapsulating the conductive leads added new matter to the case. The embodiment illustrated in Fig. 3 and described in the Specification at page 6, lines 20-24 discloses encapsulating material 28 fully encapsulating leads 13.

Claim 19 requires electrodes (e.g., solder balls 28 in Fig. 3) disposed in the encapsulating material and contacting a conductive lead. All elements of the claim must be considered together. Hence, the fully encapsulating limitation must be considered in connection with the electrode limitation to the extent that some encapsulating material must be displaced by the electrodes (e.g., solder balls 28) at the immediate point of contact with the conductive lead, whether through a preformed opening or otherwise. Applicant respectfully submits that there is nothing indefinite or unclear about the structure recited in Claim 19 when all claim limitations are read together -- persons skilled in the art, along with judges and jurors, would readily see and understand the scope of this claim. It just doesn't seem necessary or desirable to expressly recite "fully encapsulating the conductive leads except for the immediate point of contact with an electrode where the encapsulating material is necessarily displaced to allow the electrode to contact the lead."

Applicant requests that the Examiner withdraw the Section 112 rejection of Claim 19.

Rejection Under 35 U.S.C. § 102

Claims 19, 23 and 24 were rejected under Section 102 as being anticipated by Nakamura. The Examiner asserts that Nakamura's sealing resin 4 encapsulating chip 1

and resin layer 6 covering the back surface of tape carrier 2/3 combine to form the encapsulating material recited in Claims 19, 23 and 24. While the Applicant disagrees with the Examiner's assertion, Claims 19, 23 and 24 have been amended to recite "a continuous body of encapsulating material" to further distinguish Nakamura. Support for this amendment is found in the drawings -- the continuous body of encapsulating material is best seen in the cross-section views of Figs. 3 and 5 and the perspective view of Fig. 4.

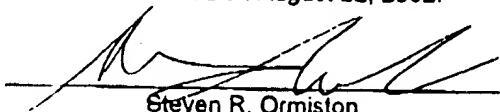
The foregoing is believed to be a complete response to the outstanding office action

Respectfully submitted,



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I, Steven R. Ormiston, certify that this Response was filed with the United States Patent and Trademark Office by facsimile to Examiner James Mitchell at fax number 703.305 3432 on August 22, 2002.



Steven R. Ormiston

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